

REMARKS/ARGUMENTS

Claims 64-121 are pending in the application. Claims 65, 99, 106, 107, 110-115, 117, and 118 are amended herein. None of these amendments affect the scope of the previously-pending claims, and therefore, additional searching is not required by the Examiner. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

On 8/15/06, the Examiner and the Examiner's Supervisor John Hayes participated in a telephonic interview with the Applicant's attorney Kevin Drucker. During the interview, the Applicant's attorney pointed out the differences between each of the independent claims in the application and the teachings of the cited Eder patent, to demonstrate the deficiencies of the pending §102 rejections. The Examiner and his Supervisor directed the Applicant to file a written response consistent with the discussion in the interview, for consideration by the Examiner. Accordingly, the Applicant submits this response and respectfully asks the Examiner to (i) consider the arguments presented herein, (ii) withdraw the finality of the present Action, and (iii) allow all of pending claims 64-121.

In paragraph 7 of the Action, the Examiner rejected claim 118 due to an antecedent basis issue, which the Applicant has corrected herein by amending claim 118, as suggested by the Examiner.

In paragraph 9 of the Action, the Examiner rejected claims 65, 99, 106, 107, 110, 111, 113, 114, and 117-119 under 35 U.S.C. §112, second paragraph, as indefinite. In response, the Applicant has amended claims 65, 99, 106, 107, 110, 111, 113-115, and 117, and it is believed that these amendments are sufficient to overcome the indefiniteness rejections.

In paragraph 10 of the Action, the Examiner rejected claims 64-68, 73-81, 89-90, 99-110, 112-116, and 119-121 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,321,205 ("Eder"). In paragraph 11 of the Action, the Examiner rejected claims 69 and 70 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 6,405,173 ("Honarvar"). In paragraph 12 of the Action, the Examiner rejected claims 71, 72, and 111 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 6,327,574 ("Kramer"). In paragraph 13 of the Action, the Examiner rejected claim 82 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 5,953,707 ("Huang"). In paragraph 14 of the Action, the Examiner rejected claims 83-85, 87, and 117 under 35 U.S.C. §103(a) as obvious over Eder. In paragraph 15 of the Action, the Examiner rejected claim 86 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent Application Pub. No. 2002/0065701 ("Kim"). In paragraph 16 of the Action, the Examiner rejected claims 88 and 93 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 5,850,538 ("Steinman"). In paragraph 17 of the Action, the Examiner rejected claims 91, 95, and 96 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent Application Pub. No. 2001/0053991 ("Bonabeau"). In paragraph 18 of the Action, the Examiner rejected claim 92 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent Application Pub. No. 2002/0099598 ("Eicher"). In paragraph 19 of the Action, the Examiner rejected claim 94 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 6,212,502 ("Ball"). In paragraph 20 of the Action, the Examiner rejected claim 97 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 5,761,486 ("Watanabe"). In paragraph 21 of the Action, the Examiner rejected claim 98 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 5,247,651 ("Clarisse") in further view of Watanabe. In paragraph 22 of the Action, the Examiner rejected claim 118 under 35 U.S.C. §103(a) as obvious over Eder in view of U.S. Patent No. 6,990,437 ("Abu El Ata").

The Applicant respectfully submits that claims 64-121 are all allowable over the cited references for at least the following reasons.

I. ANTICIPATION REJECTIONS UNDER 35 U.S.C. §102

Rejection of Claims 64-105 as Anticipated by Eder

As the Applicant's attorney discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview, claim 64 recites, *inter alia*, "(a) constructing a model of a decision domain for creating a plurality of scenarios in the decision domain, the model constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains." These features are described in the specification at, e.g., p. 19, lines 18-19; p. 22, line 16 – p. 23, line 16; p. 31, lines 16-19; and p. 80, line 11 – p. 82, line 6. For example, as the specification explains at p. 23, lines 8-16:

The present invention's modeling and simulation frameworks are highly modular and adaptive, allowing entities, their attributes, and simulated behaviors and decision rules to be modified quickly and selectively. Thus, both models and simulations can be customized to fit decision-making in particular industries (e.g., factors and behaviors specific to chemical vs. steel markets). More radical changes allow the current embodiment of the invention to be applied to entirely different decision domains. For example, the constructs used to model B2B marketplaces and related behaviors can be removed, while models of regulatory bodies and business executives and their corresponding behaviors can be added, enabling the invention to help companies assess merger & acquisition decisions.

The Applicant's decision-making framework (or platform) can support strategic decision-making in a wide variety of decision domains, including those involving "business issues such as B2B channel strategies, mergers & acquisitions, creating (or dropping) products, business units, or production capacity," as well as "strategic decision making in military, legislative, healthcare, environmental, political, and other non-business domains" (p. 15, lines 3-7).

The domain model is the framework for describing the decision domain making it possible to formulate or specify a plurality of different scenarios. As explained in the specification at p. 26, lines 6-10, "[s]pecifying the state of the world consists of defining the decision context or domain model for the strategic decision, as illustrated in Figure 1A, a top-level view of an exemplary modeling framework 19, illustrating its key elements and groupings used by one embodiment of the invention: the domain model 16, a plurality of decision options 14, and a plurality of scenarios 12." The specification further explains at p. 10, lines 10-16, that, in one exemplary embodiment, "[t]he domain model 16 identifies three kinds of elements: (1) the players that represent active agents in the decision domain, e.g., businesses and B2B marketplaces; (2) passive constructs that represent relevant, but non-autonomous objects in the decision domain, e.g., marketplace service offerings, products and services to be traded by businesses; and (3) environmental elements that characterize the underlying economic context or backdrop in which the players germane to the strategic decision interact, e.g., the economy, one or more markets." In this embodiment, "[a]ctive players have associated behaviors that enable them to modify their own state, behavior, and relationships with other domain model elements" (p. 26, lines 16-18).

The different scenarios, which "specify known data and assumptions pertaining to the decision domain elements – players, passive and environmental objects," are then defined (p. 26, lines 19-21). Such assumptions "can either specify information about the initial time or they can represent trends, i.e., extrapolations of current conditions into the future" (p. 26, lines 22-23). As further explained at p. 27, lines 1-8, in one exemplary embodiment:

Examples of scenario data and assumed trends include: the current market shares for businesses for particular trade items in a given market; the projected subscription rates for the charter members of a new B2B marketplace; the annual rate of inflation; and the annual rate of growth of trades within a market. Scenarios may also specify events, such as a hypothetical shortage of raw materials at some future time t_x , which may impact the economy, a market, its participating businesses, or some combination of these entities. Finally, scenarios specify the behavioral rules for domain model players (active agents), which will be described later in more detail.

Once the decision model has been selected and the scenarios are defined, a set of decision options to be assessed for each of the scenarios is then specified. As explained in the specification at p. 27, lines 10-15:

Each decision option characterizes a possible strategy that the target business might pursue. In one exemplary embodiment, in the B2B marketplace setting, a business might define several courses of action: build their own B2B marketplace, join an existing marketplace-1, join some other marketplace-2, or both build a marketplace and join EMktplace1.

Finally, now that the decision model has been selected and its scenarios and decision options have been defined, as explained at p. 27, line 15 – p. 28, line 5:

The simulation engine is then executed to project the states of world 13 at a future time $t+\delta t$ from the domain models, scenarios, and decision options. The simulator produces a record or trace for each projection of a domain model, scenario, and decision combination, from which various summary reports are generated. The outcomes of the alternative decisions in the different possible futures are then assessed in terms of a set of computed performance metrics presented in these reports 15. In the present context, exemplary aggregate metrics may include total transactions executed in a given B2B marketplace, total dollar value of those transactions, and levels of trust by businesses belonging to particular B2B marketplaces. Metrics may also be maintained for individual businesses, recording individual trade transactions, utilization of other B2B marketplace services, and decisions to modify participation in the on-line marketplaces. Users assess and compare the pre-defined reports summarizing outcomes to identify the decision candidate that best fits their risk and reward objectives under the broadest possible set of scenarios.

Thus, the effects of different decisions can be projected for each of a plurality of scenarios (alternative futures) in a decision domain, and the results of making each of the different decisions can be compared, so that an optimal decision (one that leads to the most consistently favorable results) across the plurality of scenarios can be identified.

The Examiner cites col. 5, line 31 to col. 6, line 25, of Eder as purportedly teaching either or both of (i) a plurality of decision domains and (ii) a plurality of scenarios, asserting that this portion of the specification “shows the valuations used to create the reference’s model; there are known methods of performing valuations that the reference’s valuation methods must have been chosen from.”

First, Eder does not disclose selecting a predefined model of a decision domain from among a plurality of predefined models of decision domains. Eder teaches only a single decision domain, i.e., the decision domain of financial valuation of a commercial enterprise (col. 5, lines 1-11). Eder teaches only a single software application defined by a single model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). This is a single model, i.e., a single decision domain. In contrast, claim 64 recites a decision domain model “constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains.” While Eder teaches a single software application that handles a single decision domain model, the framework of the present

invention, as claimed in claim 64, provides a framework for handling multiple domain models (e.g., business-related domains, such as B2B channel strategies, mergers & acquisitions, creating or dropping products, business units, or production capacity; and/or non-business domains, such as strategic decision-making in military, legislative, healthcare, environmental, or political domains) from which one predefined domain model is selected.

In Eder's database tables, only a single set of attributes or "value drivers" (shown, e.g., in Eder's FIG. 2) are stored for a single decision-making domain. These attributes are predefined in Eder's software application and represent various elements of a business enterprise that are involved in financial valuation of the enterprise. The present invention, however, supports multiple database tables for storing multiple attributes of multiple decision domains, which could range, e.g., from business-related decisions to political, military, or healthcare-related domains.

The single-domain software application of Eder is not analogous to the multiple-domain framework of the present invention, which permits the creation of limitless different software applications like Eder's for a wide variety of decision domains. While Eder merely gives us a fish, the Applicant gives us a fishing pole. Since Eder fails to disclose a decision domain model "constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains," Eder cannot anticipate claim 64.

Moreover, Eder fails to disclose a plurality of scenarios in the decision domain. The portion of the specification cited by the Examiner (col. 5, line 31 to col. 6, line 25) is a table (Table 1) that merely discloses a plurality of algorithms that are used in a single scenario during the execution of Eder's simulator. In fact, Eder even teaches away from the use of running multiple scenarios as in claim 64. Eder avoids running a plurality of simulations by consistently using the enterprise elements and valuation methodologies set forth in the table, rather than varying such factors to create different scenarios that can be compared with one another. Indeed, Eder states that "[u]ncertainty over which method is being used for completing the analysis and the resulting inability to compare different simulations is eliminated in the present invention by consistently utilizing different valuation methodologies for valuing the different elements of the enterprise as shown in Table 1" (col. 5, lines 32-37). In other words, Eder presumes that software or a user would be unable to compare the results from different scenarios, so Eder eliminates the use of different scenarios altogether, instead opting for a single scenario using the valuation methods provided in Table 1.

The only mention of the plural term "scenarios" is found in the portion of Eder that describes growth option valuation (col. 31, line 11 – col. 37, line 19), wherein these so-called "scenarios" are analyzed as part of the growth-option valuation process to arrive at a valuation for a given growth option. These so-called "scenarios" discussed in this portion of Eder are limited to the analysis of growth options and do not meet the limitations of several aspects of claim 64. In this context, each of the so-called "scenarios" (i) do not "depict[] a situation in the decision domain for which one or more candidate decisions potentially affecting the corresponding scenario parameters could be adopted" and (ii) do not "represent a possible future into which the baseline scenario could evolve," and (iii) there are no candidate decisions, each of which "represents an intervention for influencing the alternative scenario parameters defining the one or more alternative scenarios" – all three of the foregoing being features recited in claim 64.

Since Eder fails to disclose a plurality of scenarios in a decision domain, Eder also fails to disclose additional features of claim 64, including, e.g.:

(c) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios; and

(d) for each candidate decision represented by the candidate decision parameters, outputting simulation results based on the alternative scenario parameters corresponding to the simulated alternative scenarios at one or more future time instants.

In Eder, there is no simulation of the projected results of making different decisions for one or more alternative scenarios (as in step (c)) – there is only simulation of the results of making different decisions for a single scenario. In particular, regarding step (c), Eder’s approach involves the use of a static behavioral model. Eder describes how, when one or more value drivers are set to certain numeric values, the remaining numeric value drivers change. There are no “candidate decisions” that are being “test-driven” to see how these decisions affect each of the alternative scenarios, as is the case in the present invention, as claimed in claim 64. The present invention provides a dynamic behavioral model – in other words, the candidate decisions represent behaviors of actors or entities in the simulation, and the effects of making these decisions or exercising these behaviors can be seen for a plurality of different possible future sets of circumstances or scenarios. Modeling the behavior of a plurality of third-party actors or entities is not part of Eder’s static behavioral model, which only models characteristics of a single entity – the enterprise whose financial value is being described. Thus, Eder does not teach a step of “simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios,” as recited in step (c) of claim 64.

Moreover, because results of only a single scenario are being projected in Eder, there is no outputting of simulation results for each decision across alternative scenarios (as in step (d)) – there is only the outputting of simulation results for a single scenario.

Since Eder does not disclose (i) a plurality of predefined decision domains from which a user can select a decision domain, nor (ii) a plurality of scenarios in the decision domain, nor (iii) simulating each of one or more alternative scenarios as influenced by candidate decisions, nor (iv) outputting simulation results based on alternative scenario parameters corresponding to simulated alternative scenarios at one or more future time instants, it cannot be said that Eder anticipates claim 64. For similar reasons, claims 104 and 105 are novel over Eder. Since claims 65-103 depend from claim 64, it is further submitted that those claims are also novel over Eder.

Rejection of Claims 65 and 107 as Anticipated by Eder

Claim 65 recites:

65. The invention of claim 64, wherein, for a user to construct a user-specified scenario, the predefined model for the decision domain defines:

(1) one or more types of entities defining one or more types of people, places, things, events, and decision strategies in the decision domain,

(2) one or more attributes for each entity type representing one or more (i) properties of the entity type and (ii) relationships between entity types, and

(3) one or more dynamic behaviors of people, places, things, events, and decision strategies representing sources of change in the decision domain, the dynamic behaviors representing one or more ways entities (i) change over time and (ii) interact with each other, the one or more dynamic behaviors being ascribed to one or more entity types that depict people, places, things, and decision strategies.

The Examiner asserts that Eder discloses the underlined portions of claim 65 at col. 5, line 31, through col. 6, line 25. The cited portion of Eder is a table (Table 1) showing various valuation methodologies for valuing different elements of an enterprise. The attributes of these elements are represented by what Eder refers to as “value drivers” having static, numerical values. Since Eder is concerned only with financial valuation, a single set of numerical value drivers is sufficient to model the enterprise in determining its financial value. On the other hand, the present invention, as claimed in claim 65, is capable of modeling multiple actors or entities in a variety of decision domains. Each actor or entity has its own independent dynamic behaviors. Thus, the present invention, as claimed in claim 65, takes into account strategies (such as investment strategies, behavioral responses, etc.) followed by these actors or entities. As explained in the specification at p. 32, line 15, to p. 33, line 6:

Behavioral rules are code modules that capture programmatically simulated actions of domain players or interactions between domain players. Examples of behavioral rules include: (1) simulation of B2B marketplace processes for trading goods and services between businesses via fixed-price catalog sales or Request For Quotation (RFQ) models; (2) simulation of utilization of other value-added marketplace services by member businesses, such as sourcing or on-line payment; (3) decision rules that simulate how businesses change their participation in B2B marketplaces, e.g., increase trading, subscribe to new services, withdraw from a marketplace, join a new marketplace; (4) business rules that simulate how markets evolve (through aggregate growth or shrinkage, as well as from individual business transformations such as formation, closures, mergers and acquisitions); and (5) business rules that simulate how external events impact the simulated environment (economy and market) and the model’s constituent players (e.g., natural disasters that result in shortages of materials and price increases; production stoppages, regulatory changes, mergers of specific businesses).

The simulation of Eder does not take into account independent dynamic behaviors of a plurality of actors or entities and is simply not capable of modeling such behaviors, due to the fact that Eder uses only a single set of numerical value drivers for determining financial valuation. As discussed above with respect to claim 64, Eder’s approach involves the use of a static behavioral model. Eder describes how, when one or more value drivers are set to certain numeric values, the remaining numeric value drivers change. There are no “dynamic behaviors” that are being “test-driven” to see how these behaviors affect each of the alternative scenarios, as is the case in the present invention, as claimed in claim 65. The present invention provides a dynamic behavioral model – in other words, the candidate decisions represent behaviors of actors or entities in the simulation, and the effects of making these decisions or exercising these behaviors can be seen for a plurality of different possible future sets of circumstances or scenarios. Eder’s static behavioral model does not permit this to be done for a plurality of entities or actors – Eder’s decision domain model describes only a single entity, the enterprise, and its behaviors for purposes of valuation. Eder does not at all teach a decision domain model that includes “one or more dynamic behaviors of people, places, things, events, and decision strategies representing sources of change in the decision domain, the dynamic behaviors representing one or more ways entities (i) change over time and (ii) interact with each other, the one or more dynamic behaviors being ascribed to one or more entity types that depict people, places, things, and decision strategies,” as claimed in claim 65. Thus, Eder cannot be said to anticipate claim 65.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 65 is allowable over Eder. For similar reasons, claim 107, which recites that “each entity class [is] further defined by ... (iii) one or more class interfaces defining methods representing entity behaviors and dynamic interactions,” is also novel over Eder.

Rejection of Claims 106-114 as Anticipated by Eder

Claim 106 recites, *inter alia*, “(a) constructing a decision model of the decision domain for creating a plurality of scenarios in the decision domain” and “(d) compiling the application database and the specifications to generate the decision-support application, wherein the decision-support application is executable under the decision-support simulator framework.”

The Examiner asserts that Eder discloses (i) the creation of a plurality of scenarios in the decision domain and (ii) the compiling of an application database and specifications to generate an executable decision-support application.

As argued above with reference to claims 64-105 and as discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 106.

Moreover, as further discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose compiling an application database and specifications to generate an executable decision-support application. Rather, Eder teaches a single application defined by a single model that calculates and displays a forecast of the impact of user-specified or system-generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). Unlike the invention as recited in claim 106, which enables the creation of a custom application to assist in the decision-making process, Eder is limited to a single application for a single purpose, whose specifications are set forth in Eder’s specification.

Since Eder does not disclose (i) a plurality of scenarios in the decision domain, nor (ii) compiling an application database and specifications to generate an executable decision-support application, it cannot be said that Eder anticipates claim 106. For similar reasons, claims 113 and 114 are novel over Eder. Since claims 107-112 depend from claim 106, it is further submitted that those claims are also novel over Eder.

Rejection of Claims 115-121 as Anticipated by Eder

Claim 115 recites, *inter alia*:

- (a) generating, based on user input, a plurality of alternative scenarios representing possible evolutions of a baseline scenario;
- (b) generating, based on user input, a plurality of strategies for influencing the alternative scenarios;
- (c) simulating outcomes of each of the strategies for each of the alternative scenarios over time; and
- (d) providing output data, based on the simulated outcomes, to permit comparison of the simulated outcomes for each of the strategies.

As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of alternative scenarios in a decision domain, and the Applicant reasserts these arguments for claim 115. Since Eder fails to disclose a plurality of alternative scenarios in a decision domain, Eder also fails to disclose additional features of claim 115, including, e.g.:

- (c) simulating outcomes of each of the strategies for each of the alternative scenarios over time; and
- (d) providing output data, based on the simulated outcomes, to permit comparison of the simulated outcomes for each of the strategies.

In Eder, there is no simulation of the projected outcomes of employing different strategies that influence each a plurality of alternative scenarios (as in step (c)) – there is only simulation of the projected outcome of employing different strategies for a single scenario. Because outcomes of only a single scenario are being projected in Eder, there is no provision of output data to permit comparison of simulated outcomes for each of the strategies (as in step (d)) – there is only the provision of output data of the simulation outcome for a single scenario.

Since Eder does not disclose (i) a plurality of alternative scenarios in the decision domain, nor (iii) simulating outcomes of each of the strategies for each of a plurality of alternative scenarios over time, nor (iv) providing output data, based on the simulated outcomes, to permit comparison of the simulated outcomes for each of the strategies, it cannot be said that Eder anticipates claim 115. For similar reasons, claims 120 and 121 are novel over Eder. Since claims 116-119 depend from claim 115, it is further submitted that those claims are also novel over Eder.

Rejection of Claim 67 as Anticipated by Eder

Claim 67 recites, *inter alia*, that “each of the one or more alternative scenarios corresponds to assumptions about one or more situational forces, trends, events, and entity behaviors that drive a plausible alternative evolution of the baseline scenario over one or more future time instants.” The Examiner asserts that Eder, at col. 46, line 46 through col. 47, line 8, discloses this feature. The Applicant respectfully submits that Eder does not disclose any such feature. For ease of reference, this cited portion of Eder is reproduced below:

The operation of the software in block 854 is dependent upon the input stored in the scenario table (184). If the user has specified changes in value drivers and is seeking to understand the probable impact of these changes on the other value drivers, the financial performance and the future value of the enterprise, then the software in block 854 iterates the model as required to ensure the convergence of the frequency distribution of the output variables. Alternatively, if the user specified a specific level of future financial performance and is seeking a recommendation regarding changes to be made, then the simulation is run in a goal seeking mode. In either case after the simulation calculations have been completed, the software in block 854 saves the resulting information in the scenario table (184) before processing advances to a software block 855.

The software in block 855 displays the results of the simulation to the user (20) via a Value Mentor™ display data window (920) that uses a summary Value Map™ format to display the mid point and the range of estimated future values for the various elements of the enterprise and the changes in value drivers, user-specified or system generated, that drove the future value estimate. The user (20) is also prompted to indicate when the examination of the displayed report is complete. When the user (20) indicates that the examination is complete, processing advances to a software block 856. The software in block 856 prompts the user via a Value Mentor™ report data window (922) to indicated if any additional reports should be printed. The information entered by the user (20) is entered in to the reports table (172) before processing advances to a block 857.

As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 67. Eder discloses a simulation that involves only a single scenario. The foregoing portion of Eder, at best, discloses the use of a single scenario, stored in a single scenario table 184. Nothing in this passage discloses the use of more than one scenario, let alone a plurality of scenarios wherein each scenario corresponds to assumptions about one or more situational forces, trends, events, and entity behaviors that drive a plausible alternative evolution of the baseline scenario over one or more future time instants.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 67 is allowable over Eder.

Rejection of Claims 73 and 74 as Anticipated by Eder

Claim 73 recites, *inter alia*, that “the simulation of step (c) is based on situational dynamics including one or more behavioral rules, formulas, trends, and algorithmic methods characterizing changes in one or more alternative scenario parameters caused by one or more behaviors of one or more entities.” As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 73. Eder discloses a simulation that involves only a single scenario. The cited portion of Eder (col. 5, line 31 – col. 6, line 25; col. 46, line 46 – col. 47, line 8), at best, discloses a simulation that involves a single scenario, stored in a single scenario table 184. There are no “alternative scenarios” or “alternative scenario parameters” in Eder.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 73 is allowable over Eder.

Claim 74 recites, *inter alia*, that “the situational dynamics are specified either (i) as pre-defined elements in the decision domain model, (ii) via user-specified attribute parameters, or (iii) both pre-defined elements in the decision domain model and via user-specified attribute parameters.” The Examiner cites col. 5, line 31 – col. 6, line 25 of Eder as purportedly disclosing the foregoing, but the cited portion, reproduced below for ease of reference, discloses nothing about user-specified attribute parameters:

TABLE 1

Enterprise element	Valuation methodology
*Excess Cash & Marketable Securities	GAAP
Total current-operation value (COPTOT):	Income valuation
Current-operation: Cash & Marketable Securities CASH	GAAP
Current-operation: Accounts Receivable (AR)	GAAP
Current-operation: Inventory (IN)	GAAP
Current-operation: Prepaid Expenses (PE)	GAAP
Current-operation: Production Equipment (PEQ)	If correlation value > liquidation value, then use correlation valuation, else use liquidation value
Current-operation: Other Physical Assets (OPA)	Liquidation Value
Current-operation: Other Assets (OA)	GAAP
Current-operation: Intangible Assets (IA): Customers	Correlation to component(s) of value
Employees	Correlation to component(s) of value
Vendor Relationships	Correlation to component(s) of value
Strategic Partnerships	Correlation to component(s) of value
Brand Names	Correlation to component(s) of value

TABLE 1-continued

Enterprise element	Valuation methodology
Other Intangibles	Correlation to component(s) of value
Current-operation: General going concern value (GCV)	GCV = COPTOT - CASH - AR - IN - PE - PEQ - OPA - OA - IA
*Growth options	Option pricing algorithms

*The user also has the option of specifying the total value

The value of an enterprise operation is calculated by summing items from Table 1 as shown in Table 2.

TABLE 2

Enterprise Value =
Current value of enterprise excess cash and marketable securities
+
Value of current-operation
+
Value of growth options

As can plainly be seen from Table 1, above, these parameters are all predetermined and fixed attribute parameters, not user-specified attribute parameters. The software of Eder provides these parameters for the user, and there is no provision in Eder for a user to specify his or her own parameters. This is because, as argued above with respect to claim 64, Eder does not disclose the ability to handle multiple decision-making domains. Eder teaches only a single decision domain, i.e., the decision domain of financial valuation of a commercial enterprise (col. 5, lines 1-11). Eder teaches only a single software application defined by a single model that calculates and displays a forecast of the impact of user-specified

or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). This is a single model, i.e., a single decision domain. In contrast, claim 64 recites a decision domain model “constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains.” While Eder teaches a single software application that handles a single decision domain model, the framework of the present invention, as claimed in claim 64, provides a framework for handling multiple domain models (e.g., business-related domains, such as B2B channel strategies, mergers & acquisitions, creating or dropping products, business units, or production capacity; and/or non-business domains, such as strategic decision-making in military, legislative, healthcare, environmental, or political domains) from which one predefined domain model is selected.

In Eder’s database tables, only a single set of attributes or “value drivers” (shown, e.g., in Eder’s FIG. 2) are stored for a single decision-making domain. These attributes are predefined in Eder’s software application and represent various elements of a business enterprise that are involved in financial valuation of the enterprise. The present invention, however, supports multiple database tables for storing multiple attributes of multiple decision domains, which could range, e.g., from business-related decisions to political, military, or healthcare-related domains. This is the reason why user-specified parameters for specifying situational dynamics is recited in claim 74. Eder has no need for user-specified parameters because Eder is a fixed framework for a single domain, namely, the financial valuation of an enterprise.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 74 is allowable over Eder.

Moreover, since claim 74 depends from claim 73, it is further submitted that this claim is also novel over Eder for the same reasons discussed above with reference to claim 73.

Rejection of Claim 75 as Anticipated by Eder

Claim 75 recites, *inter alia*, “storing persistently, for each candidate decision represented by the candidate decision parameters, scenario parameters corresponding to baseline and alternative scenarios received in step (b).” As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 75. Eder discloses a simulation that involves only a single scenario. The cited portion of Eder (col. 8, line 26 – col. 9, line 2) is reproduced below for ease of reference:

All extracted information concerning revenue, expenses, capital and elements of value is stored in a file or table (hereinafter, table) within an application database (50) as shown in FIG. 2. The application database (50) contains tables for storing user input, extracted information and system calculations including a system settings table (140), a revenue data table (141), an expense data table (142), a capital data table (143), an equity data table (144), a physical asset ID table (145), an asset liquidation price table (146), an account number structure table (147), an equity forecast table (148), a data dictionary table (149), a revenue component definition table (150), an expense component definition table (151), a capital component definition table (152), an element of value definition table (153), a sub-element definition table (154), an enterprise definition table (155), a composite variable table (156), a sub-element weights table (157), a revenue model gene table (158), a revenue model weights table (159), an expense model gene table (160), an expense model weights table (161), a capital model gene table (162), a capital model weights table (163), a revenue component percentage table (164), an expense component percentage table (165), a capital component percentage table (166), a composite variable location table (167), a composite variable

data table (168), a normalized composite variable data table (169), an enterprise value table (170), an economic equity values table (171), a reports table (172), a tax data table (173), a debt data table (174), a growth option definition table (175), a growth option overlap table (176), a growth option scenario table (177), a growth option value table (178), a revenue driver table (179), an expense driver table (180), a capital driver table (181), an excluded variable table (182), a driver genes table (183) and a scenario table (184). The application database (50) can optionally exist as a datamart, data warehouse or departmental warehouse. The system of the present invention has the ability to accept and store supplemental or primary data directly from user input, a data warehouse or other electronic files in addition to receiving data from the databases described previously. The system of the present invention also has the ability to complete the necessary calculations without receiving data from one or more of the specified databases. However, in the preferred embodiment all required information is obtained from the specified databases (5,10, 15, 30, 35 & 40).

While the foregoing passage does disclose storage of various types of data, it does not disclose the storage of data for a simulation that involves more than a single scenario. There are no “baseline” or “alternative” scenarios or parameters corresponding thereto in Eder, and thus, there can be no storage of “scenario parameters corresponding to baseline and alternative scenarios.” This is because, as argued above with respect to claim 64, Eder does not disclose the ability to handle multiple decision-making domains. Eder teaches only a single decision domain, i.e., the decision domain of financial valuation of a commercial enterprise (col. 5, lines 1-11). Eder teaches only a single software application defined by a single model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). This is a single model, i.e., a single decision domain. In contrast, claim 75 recites “storing persistently, for each candidate decision represented by the candidate decision parameters, scenario parameters corresponding to baseline and alternative scenarios received in step (b).” The “baseline and alternative scenarios received in step (b)” of claim 64 are user-specified, and are part of a decision domain model “constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains.”

While Eder teaches a single software application that handles a single decision domain model, the framework of the present invention, as claimed in claim 64, provides a framework for handling multiple domain models (e.g., business-related domains, such as B2B channel strategies, mergers & acquisitions, creating or dropping products, business units, or production capacity; and/or non-business domains, such as strategic decision-making in military, legislative, healthcare, environmental, or political domains) from which one predefined domain model is selected.

In Eder’s database tables, only a single set of attributes or “value drivers” (shown, e.g., in Eder’s FIG. 2) are stored for a single decision-making domain. These attributes are predefined in Eder’s software application and represent various elements of a business enterprise that are involved in financial valuation of the enterprise. The present invention, however, supports multiple database tables for storing multiple attributes of multiple decision domains, which could range, e.g., from business-related decisions to political, military, or healthcare-related domains. This is the reason why the storage of user-specified scenarios is recited in claim 75. Eder has no need for user-specified scenarios because Eder is a fixed framework for a single domain, namely, the financial valuation of an enterprise. The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 75 is allowable over Eder.

Rejection of Claim 76 as Anticipated by Eder

Claim 76 recites, *inter alia*, “storing persistently, for outputs produced by simulations of alternative scenarios and candidate decisions over one or more future time instants, all changes in scenario entities and attribute parameters of the scenario entities simulated in step (c).” As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 76. While the passages cited by the Examiner (col. 8, line 26 – col. 9, line 2; col. 46, line 46 – col. 47, line 8) do disclose storage of various types of data, they do not disclose the storage of output data for a simulation that involves more than a single scenario. There are no “alternative” scenarios or parameters corresponding thereto in Eder, and thus, there can be no storage, “for outputs produced by simulations of alternative scenarios and candidate decisions over one or more future time instants, all changes in scenario entities and attribute parameters of the scenario entities simulated in step (c).”

This is because, as argued above with respect to claim 64, Eder does not disclose the ability to handle multiple decision-making domains. Eder teaches only a single decision domain, i.e., the decision domain of financial valuation of a commercial enterprise (col. 5, lines 1-11). Eder teaches only a single software application defined by a single model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). This is a single model, i.e., a single decision domain. In contrast, claim 76 recites “storing persistently, for outputs produced by simulations of alternative scenarios and candidate decisions over one or more future time instants, all changes in scenario entities and attribute parameters of the scenario entities simulated in step (c)” of claim 64, which are user-specified scenarios and decisions and are part of a decision domain model “constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains.”

While Eder teaches a single software application that handles a single decision domain model, the framework of the present invention, as claimed in claim 64, provides a framework for handling multiple domain models (e.g., business-related domains, such as B2B channel strategies, mergers & acquisitions, creating or dropping products, business units, or production capacity; and/or non-business domains, such as strategic decision-making in military, legislative, healthcare, environmental, or political domains) from which one predefined domain model is selected.

In Eder’s database tables, only a single set of attributes or “value drivers” (shown, e.g., in Eder’s FIG. 2) are stored for a single decision-making domain. These attributes are predefined in Eder’s software application and represent various elements of a business enterprise that are involved in financial valuation of the enterprise. The present invention, however, supports multiple database tables for storing multiple attributes of multiple decision domains, which could range, e.g., from business-related decisions to political, military, or healthcare-related domains. This is the reason why the storage of user-specified changes in scenarios and attribute parameters is recited in claim 76. Eder has no need for user-specified scenarios or attribute parameters because Eder is a fixed framework for a single domain, namely, the financial valuation of an enterprise.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 76 is allowable over Eder.

Rejection of Claims 77-79 as Anticipated by Eder

Claim 77 recites, *inter alia*, “graphically displaying one or more summaries of changes in alternative scenario parameters corresponding to the simulated alternative scenarios over one or more future time instants for purposes of analyzing projected outcomes of simulated candidate decisions.” As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 77. The passage cited by the Examiner (col. 46, line 46 – col. 47, line 8) does not disclose the graphical display of changes in alternative scenario parameters, because the simulation disclosed in Eder involves no more than a single scenario. There are no “alternative” scenarios or parameters corresponding thereto in Eder, and thus, there can be no graphical display of “summaries of changes in alternative scenario parameters corresponding to the simulated alternative scenarios over one or more future time instants.”

This is because, as argued above with respect to claim 64, Eder does not disclose the ability to handle multiple decision-making domains. Eder teaches only a single decision domain, i.e., the decision domain of financial valuation of a commercial enterprise (col. 5, lines 1-11). Eder teaches only a single software application defined by a single model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). This is a single model, i.e., a single decision domain. In contrast, claim 77 recites “graphically displaying one or more summaries of changes in alternative scenario parameters corresponding to the simulated alternative scenarios over one or more future time instants for purposes of analyzing projected outcomes of simulated candidate decisions.” The alternative scenarios and parameters, as recited in claim 64, are user-specified scenarios and decisions and are part of a decision domain model “constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains.”

While Eder teaches a single software application that handles a single decision domain model, the framework of the present invention, as claimed in claim 64, provides a framework for handling multiple domain models (e.g., business-related domains, such as B2B channel strategies, mergers & acquisitions, creating or dropping products, business units, or production capacity; and/or non-business domains, such as strategic decision-making in military, legislative, healthcare, environmental, or political domains) from which one predefined domain model is selected.

In Eder’s invention, only a single set of reports for attributes or “value drivers” (shown, e.g., in Eder’s FIG. 2) are generated for a single decision-making domain. These attributes are predefined in Eder’s software application and represent various elements of a business enterprise that are involved in financial valuation of the enterprise. The present invention, however, supports multiple database tables for storing multiple attributes of multiple decision domains, which could range, e.g., from business-related decisions to political, military, or healthcare-related domains. This is the reason why the graphic display of summaries of changes in alternative scenario parameters is recited in claim 77. Eder has no need for user-specified graphic summaries of different scenarios or parameters from different domain models because Eder is a fixed framework for a single domain, namely, the financial valuation of an enterprise.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 77 is allowable over Eder. Since claim 78 depends from claim 77, it is further submitted that this claim is also novel over Eder for the same reasons discussed above with reference to claim 77.

Claim 79 recites, *inter alia*, that “the summaries enable comparative analysis of one or more differences, strengths and weaknesses of candidate decisions in achieving desired results across alternative scenarios.” As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 79. The passage cited by the Examiner (col. 46, line 46 – col. 47, line 8) does not disclose summaries that “enable comparative analysis of one or more differences, strengths and weaknesses of candidate decisions in achieving desired results across alternative scenarios,” because the simulation disclosed in Eder involves no more than a single scenario. There are no “alternative” scenarios or parameters corresponding thereto in Eder, and thus, there can be no summaries that “enable comparative analysis of one or more differences, strengths and weaknesses of candidate decisions in achieving desired results across alternative scenarios.”

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 79 is allowable over Eder. Moreover, since claim 79 depends from 77, it is further submitted that this claim is also novel over Eder for the same reasons discussed above with reference to claim 77.

Rejection of Claim 100 as Anticipated by Eder

Claim 100 recites, *inter alia*, that “the analyses include one or more (i) graphic time series and histogram charts of scenario attributes and (ii) tabular reports summarizing changes in entity attribute parameter values over one or more future time instants.” The Examiner cites Figure 14 and col. 46, line 46, through col. 47, line 8 of Eder as allegedly disclosing that “the analyses include one or more tabular reports summarizing changes in entity attribute parameters over one or more future time instants.” However, items (i) and (ii) of claim 100 are recited in the conjunctive (“one or more (i) and (ii)”), not the disjunctive (“one or more (i) or (ii)”). Thus, one or more “(i) graphic time series and histogram charts of scenario attributes and one or more “(ii) tabular reports” are required. Since Eder fails to disclose at all the use of “graphic time series and histogram charts of scenario attributes,” Eder cannot anticipate claim 100.

Moreover, because, as argued above with respect to claim 64, Eder does not disclose the ability to handle multiple decision-making domains. Eder teaches only a single decision domain, i.e., the decision domain of financial valuation of a commercial enterprise (col. 5, lines 1-11). Eder teaches only a single software application defined by a single model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). This is a single model, i.e., a single decision domain. In contrast, claim 100 recites analyses that include “one or more (i) graphic time series and histogram charts of scenario attributes and (ii) tabular reports summarizing changes in entity attribute parameter values over one or more future time instants.” The scenario attributes, as recited in claim 64, are user-specified scenario attributes and are part of a decision domain model “constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains.”

While Eder teaches a single software application that handles a single decision domain model, the framework of the present invention, as claimed in claim 64, provides a framework for handling multiple domain models (e.g., business-related domains, such as B2B channel strategies, mergers & acquisitions, creating or dropping products, business units, or production capacity; and/or non-business domains, such as strategic decision-making in military, legislative, healthcare, environmental, or political domains) from which one predefined domain model is selected.

In Eder's invention, only a single set of reports for attributes or "value drivers" (shown, e.g., in Eder's FIG. 2) are stored for a single decision-making domain. These attributes are predefined in Eder's software application and represent various elements of a business enterprise that are involved in financial valuation of the enterprise. The present invention, however, supports multiple database tables for storing multiple attributes of multiple decision domains, which could range, e.g., from business-related decisions to political, military, or healthcare-related domains. This is the reason why analyses including "one or more (i) graphic time series and histogram charts of [user-specified] scenario attributes and (ii) tabular reports summarizing changes in [user-specified] entity attribute parameter values over one or more future time instants" are recited in claim 100. Eder has no need for user-specified analyses of different scenarios or parameters from different domain models because Eder is a fixed framework for a single domain, namely, the financial valuation of an enterprise.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 100 is allowable over Eder.

Rejection of Claim 101 as Anticipated by Eder

Claim 101 recites, *inter alia*, that "the analyses permit comparison of entity attribute parameter values over one or more future time instants across simulation runs of different candidate decisions under alternative scenarios." As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 101. The passages cited by the Examiner (Figure 14; col. 6, lines 44-64; col. 46, lines 20-31; col. 46, line 46 – col. 47, line 8) do not disclose analyses that "permit comparison of entity attribute parameter values over one or more future time instants across simulation runs of different candidate decisions under alternative scenarios," because the simulation disclosed in Eder involves no more than a single scenario. There are no "alternative" scenarios or parameters corresponding thereto in Eder, and thus, there can be no analyses that "permit comparison of entity attribute parameter values over one or more future time instants across simulation runs of different candidate decisions under alternative scenarios."

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 101 is allowable over Eder.

Rejection of Claim 102 as Anticipated by Eder

Claim 102 recites, *inter alia*, that "at least one intervention is a strategy, plan, investment, or other proposed course of action for influencing a scenario in a desired manner." The Examiner cites to col. 6, lines 44-64 and col. 46, line 46 – col. 47, line 8, of Eder as purportedly disclosing this feature. However, neither of the cited passages discloses influencing a scenario using a strategy, plan, investment, or other proposed course of action. These passages do describe the use of value drivers in a simulation, but these value drivers, whether their values are system-generated or user-specified, do not include any interventions that are proposed courses of action for influencing scenarios. The simulation of Eder does not take into account independent dynamic behaviors of a plurality of actors or entities and is simply not capable of modeling such behaviors, due to the fact that Eder uses only a single set of numerical value drivers for determining financial valuation. As discussed above with respect to claim 64, Eder's approach involves the use of a static behavioral model. Eder describes how, when one or more value drivers are set to certain numeric values, the remaining numeric value drivers change. There is no "at least one intervention that is a strategy, plan, investment, or other proposed course of action for influencing a scenario in a desired manner" and that is being "test-driven" to see how this behavior affects each of the alternative scenarios, as is the case in the present invention, as claimed in claim 102. The present invention provides a dynamic

behavioral model – in other words, the candidate decisions represent behaviors of actors or entities in the simulation, and the effects of making these decisions or exercising these behaviors can be seen for a plurality of different possible future sets of circumstances or scenarios. Eder’s static behavioral model does not permit this to be done for a plurality of entities or actors – Eder’s decision domain model describes only a single entity, the enterprise, and its behaviors for purposes of valuation. Eder does not at all teach a decision domain model wherein “at least one intervention is a strategy, plan, investment, or other proposed course of action for influencing a scenario in a desired manner,” as claimed in claim 102. The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 102 is allowable over Eder.

Rejection of Claim 103 as Anticipated by Eder

Claim 103 recites, *inter alia*, that “at least one intervention is a strategy not to influence the alternative scenario parameters.” The Examiner cites to col. 46, line 46 – col. 47, line 8, of Eder as allegedly disclosing this feature. However, the simulation disclosed in Eder involves no more than a single scenario. There are no “alternative” scenarios or parameters corresponding thereto in Eder, and thus, there can be no strategy not to influence alternative scenario parameters, since alternative scenario parameters do not exist in Eder.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 103 is allowable over Eder.

Rejection of Claim 110 as Anticipated by Eder

Claim 110 recites, *inter alia*, that “step (a) comprises providing a software development environment for a user to create the decision model, wherein the decision model is application-specific.” The Examiner cites to col. 46, line 46 – col. 47, line 8, of Eder as allegedly disclosing this feature. However, nowhere in the cited portion of Eder is a software development environment disclosed that permits a user to create an application-specific decision model. Rather, Eder teaches a single application defined by a single, pre-defined model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). Unlike the invention as recited in claim 110, which enables the creation of a custom application to assist in the decision-making process, Eder is limited to a single application for a single purpose, whose specifications are set forth in Eder’s specification. Since Eder does not disclose providing a software development environment for a user to create the decision model, wherein the decision model is application-specific, it cannot be said that Eder anticipates claim 110.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 110 is allowable over Eder.

Rejection of Claim 116 as Anticipated by Eder

Claim 116 recites, *inter alia*, that “the outcomes include one or more performance metrics to permit selection of an optimal strategy.” The Examiner cites to col. 6, lines 44-64 and col. 46, line 46 – col. 47, line 8, of Eder as purportedly disclosing this feature. However, the cited passage fails to disclose selection of a strategy from among a plurality of strategies, or decision options. These passages do describe the use of value drivers in a simulation, but these value drivers, whether their values are system-generated or user-specified, do not include any strategies or other interventions that are proposed courses of action for

influencing scenarios. The simulation of Eder does not take into account strategies, or independent dynamic behaviors of a plurality of actors or entities and is simply not capable of modeling such behaviors, due to the fact that Eder uses only a single set of numerical value drivers for determining financial valuation. As discussed above with respect to claim 64, Eder's approach involves the use of a static behavioral model. Eder describes how, when one or more value drivers are set to certain numeric values, the remaining numeric value drivers change. There is no "selection of an optimal strategy," as is the case in the present invention, as claimed in claim 116. The present invention provides a dynamic behavioral model – in other words, the candidate decisions represent behaviors of actors or entities in the simulation, and the effects of making these decisions or exercising these behaviors can be seen for a plurality of different possible future sets of circumstances or scenarios. Eder's static behavioral model does not permit this to be done for a plurality of entities or actors – Eder's decision domain model describes only a single entity, the enterprise, and its behaviors for purposes of valuation. Eder does not at all teach outcomes that "include one or more performance metrics to permit selection of an optimal strategy," as claimed in claim 102, because Eder employs no such strategies from which to select an optimal strategy. Since Eder does not disclose that "the outcomes include one or more performance metrics to permit selection of an optimal strategy," it cannot be said that Eder anticipates claim 116. The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 116 is allowable over Eder.

Rejection of Claim 119 as Anticipated by Eder

Claim 119 recites, *inter alia*, that "the decision domain is selected from the group consisting of: structure of legislation, public policy, competitive strategy, change management, portfolio management, military strategy, and corporate governance." The Examiner cites to col. 6, lines 44-64 and col. 46, line 46 – col. 47, line 8, of Eder as purportedly disclosing "competitive strategy" as the decision domain. "Competitive strategy" is defined, e.g., as "[t]he adoption of a unique position in the marketplace through targeting a specific market and marketing mix" (Lee et al., *Global Marketing Management*, Oxford Univ. Press (2005), copy attached as Exhibit A). "Competitive strategy" is also defined, e.g., as "the triangular positioning of a single offering vis-à-vis a unique set of potential customers and competitors" (Grant, *Contemporary Strategy Analysis*, Blackwell Pubs. (2002), at Exhibit 3.3, copy attached as Exhibit B). According to *Wharton on Dynamic Competitive Strategy* (Day et al., eds., Wiley & Sons (1997), at pp. 14-15, copy attached as Exhibit C), "four key challenges facing managers in developing competitive strategy" are "(1) Understanding advantages in a changing competitive environment, (2) Anticipating competitors' actions, (3) Formulating dynamic competitive strategies, and (4) Choosing alternative competitive strategies." From the foregoing citations, it is clear that competitive strategy involves the analysis of at least several concepts and factors mentioned therein: marketing and the targeting of certain markets, customers, competitors and the anticipation of competitors' actions, and alternative strategies. The cited portion of Eder does not relate at all to any of these concepts or factors, but rather, merely relates to a financial valuation of a single business.

The simulation of Eder does not take into account strategies, or independent dynamic behaviors of a plurality of actors or entities and is simply not capable of modeling such behaviors, due to the fact that Eder uses only a single set of numerical value drivers for determining financial valuation. As discussed above with respect to claim 64, Eder's approach involves the use of a static behavioral model. Eder describes how, when one or more value drivers are set to certain numeric values, the remaining numeric value drivers change. There is no "competitive strategy," as is the case in the present invention, as claimed in claim 119. The present invention provides a dynamic behavioral model – in other words, the candidate decisions represent behaviors of actors or entities in the simulation, and the effects of making these decisions or exercising these behaviors can be seen for a plurality of different possible future sets of circumstances or scenarios. Eder's static behavioral model does not permit this to be done for a plurality of

entities or actors – Eder’s decision domain model describes only a single entity, the enterprise, and its behaviors for purposes of valuation. Eder does not at all teach a simulation involving “competitive strategy,” as claimed in claim 119. Nor does Eder disclose any of the other decision domains recited in claim 119, because Eder is limited to the decision domain of financial valuation of a business. Since Eder does not disclose a decision domain “selected from the group consisting of: structure of legislation, public policy, competitive strategy, change management, portfolio management, military strategy, and corporate governance,” it cannot be said that Eder anticipates claim 119.

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 119 is allowable over Eder.

II. OBVIOUSNESS REJECTIONS UNDER 35 U.S.C. §103

Rejection of Claim 70 as Obvious over Eder and Honarvar

Claim 70 recites, *inter alia*, that “the attribute parameters are permitted to assume values of any one or more of the following data types: integer or real numbers, symbols, lists, tables, vectors, relationships, interval ranges, free text, and Boolean descriptors.” The Examiner cites col. 46, line 46, through col. 47, line 8 of Eder as allegedly disclosing that “the attribute parameters are permitted to assume values of real numbers.” However, the list of data types set forth in claim 70 are recited in the conjunctive (“the attribute parameters are permitted to assume values of any one or more of the following data types ...”), not the disjunctive (“each attribute parameters is of a data type selected from the group consisting of ...”). Thus, to satisfy the claim limitations of claim 70, the attribute parameters must be permitted to assume values of any of the recited data types. In Eder, the attribute parameters are permitted to assume only numeric data types. Since Eder fails to disclose or even suggest at all the use of attribute parameters that “are permitted to assume values of any one or more of the following data types: integer or real numbers, symbols, lists, tables, vectors, relationships, interval ranges, free text, and Boolean descriptors,” Eder cannot render obvious claim 70. Nor does Honarvar supply the missing teachings.

The Applicant submits therefore that claim 70 is allowable over Eder and Honarvar.

Rejection of Claims 71 and 72 as Obvious over Eder and Kramer

Claim 71 recites, *inter alia*, that “attribute parameters have descriptive metadata for user-specified annotations.” The Examiner cites to Kramer as disclosing this feature. Kramer, however, is clearly non-analogous art, dealing with the analysis of consumer preferences. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Kramer for guidance regarding metadata. Accordingly, Eder and Kramer cannot properly be combined to render claim 71 obvious.

The Applicant submits therefore that claim 71 is allowable over Eder and Kramer.

Claim 72 recites, *inter alia*, that “the metadata includes one or more comments about user-specified values for attribute parameters, references to the data sources of the user-specified values, classification as to the user-specified values being known as a fact or as an assumption, and the degree of certainty of an assumption.” The Examiner cites to Kramer as disclosing this feature. Kramer, however, is clearly non-analogous art, dealing with the analysis of consumer preferences. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Kramer for guidance regarding metadata. Accordingly, Eder and Kramer cannot properly be combined to render claim 72 obvious.

The Applicant submits therefore that claim 72 is allowable over Eder and Kramer. Moreover, since claim 72 depends from 71, it is further submitted that this claim is also allowable over Eder and Kramer for the same reasons discussed above with reference to claim 71.

Rejection of Claim 111 as Obvious over Eder and Kramer

Claim 111 recites, *inter alia*, the substeps of:

(i) using an automated code generator to generate code embodying relational schema and metadata from entity type specifications; and

(ii) editing and executing the code to generate relational schema and metadata for the decision model, wherein the decision model is application-specific.

The Examiner cites to Eder at col. 5, lines 16-30; col. 9, line 41, to col. 10, line 15; and col. 46, line 46, to col. 47, line 8 as disclosing the foregoing steps. However, nowhere in the cited portion of Eder is the use of an automated code generator disclosed, nor is editing executable code disclosed. Rather, Eder teaches a single application defined by a single, pre-defined model that calculates and displays a forecast of the impact of user-specified or system generated changes in business value drivers on other value drivers, elements, financial performance and long-term value of a commercial enterprise, based on information from a detailed valuation of the enterprise (col. 5, lines 1-9). Unlike the invention as recited in claim 111, which enables the creation of a custom application to assist in the decision-making process, Eder is limited to a single application for a single purpose, whose specifications are set forth in Eder's specification. Eder simply does not disclose using an automated code generator or editing code to generate relational schema and metadata for a decision model. Nor does Kramer supply the missing teachings.

Moreover, Kramer is clearly non-analogous art, dealing with the analysis of consumer preferences. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Kramer for guidance regarding the use of an automated code generator disclosed, nor the editing of code. Accordingly, Eder and Kramer cannot properly be combined to render claim 111 obvious.

The Applicant submits therefore that claim 111 is allowable over Eder and Kramer.

Rejection of Claim 82 as Obvious over Eder and Huang

Claim 82 recites, *inter alia*, that "step (b) comprises storing baseline scenario parameters and permitting user entry of alternative scenario parameters by copying baseline or alternative scenarios and altering one or more of the copied scenario parameters." As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 82. Eder discloses a simulation that involves only a single scenario. The Examiner cites to Huang as disclosing the storage and copying of scenario parameters. However, Huang also fails to disclose the use of more than a single scenario. Thus, there are no "baseline" or "alternative" scenarios or parameters corresponding thereto in Eder or Huang, and consequently, there can be no storage or copying of "baseline scenario parameters" or "alternative scenario parameters."

Additionally, Huang is non-analogous art, dealing with the analysis of managing a supply chain. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Kramer for guidance regarding the storage or copying of scenario parameters.

The Applicant submits therefore that claim 82 is allowable over Eder and Huang.

Rejection of Claim 117 as Obvious over Eder

Claim 117 recites, *inter alia*, that “the optimal strategy is a strategy that displays superior values of performance metrics across the plurality of alternative scenarios” The Examiner does not cite any particular portion of Eder as disclosing this feature, but instead appears to be taking official notice that “the optimal strategy is general [sic] regarded to be the strategy that is predicted to be the most successful,” then concluding that it “would have been obvious to one of ordinary skill in the art at the time of applicant’s invention to modify the invention of Eder such that an optimal strategy is a strategy that displays superior values of performance metrics across the plurality of alternative scenarios, as was well-known in the art at the time of applicant’s invention.” This argument is without any supporting documentary evidence, and there is no clear technical line of reasoning underlying the Examiner’s decision to take such notice. The Applicant respectfully asks the Examiner either to support this finding with adequate evidence, pursuant to MPEP section 2144.03(C), or to withdraw this rejection.

Moreover, as argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 117. Eder does not disclose that “the optimal strategy is a strategy that displays superior values of performance metrics across the plurality of alternative scenarios,” because the simulation disclosed in Eder involves no more than a single scenario. There are no “alternative” scenarios or parameters corresponding thereto in Eder, and thus, there can be no “superior values of performance metrics across the plurality of alternative scenarios.”

The Applicant submits therefore that the above discussion provides additional reasons for the assertion that claim 117 is allowable over Eder.

Rejection of Claim 86 as Obvious over Eder and Kim

Claim 86 recites, *inter alia*, that “the common data exchange format is a comma-delimited spreadsheet export format (CSV) or an extensible markup language (XML) document format.” The Examiner cites to Kim as disclosing this feature. Kim, however, is clearly non-analogous art, dealing with the automation of business processes within an organization. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Kim for guidance regarding data exchange formats. Accordingly, Eder and Kim cannot properly be combined to render claim 86 obvious.

The Applicant submits therefore that claim 86 is allowable over Eder and Kim.

Rejection of Claim 88 as Obvious over Eder and Steinman

Claim 88 recites, *inter alia*, that “step (c) comprises applying a parallel discrete-event simulation technique.” The Examiner cites to Steinman as disclosing this feature. Steinman, however, is clearly non-analogous art, dealing with a scheme for managing events within a priority queue stored on a computer. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Steinman for guidance regarding simulation techniques. Accordingly, Eder and Steinman cannot properly be combined to render claim 88 obvious.

Moreover, even assuming, *arguendo*, that Eder and Steinman were properly combinable, which they are not, no combination of Eder and Steinman would yield what is claimed in claim 88. Step (c), to which claim 88 refers, recites “(c) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios.” Nowhere do Eder or Steinman teach, disclose, or even suggest the simulation of a plurality of scenarios, as fully argued above

with reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview. Nor does Steinman supply the missing teachings. Since Eder and Steinman fail to disclose the creation of a plurality of scenarios in a decision domain, Eder and Steinman, whether taken alone or in combination, cannot possibly disclose applying a parallel discrete-event simulation technique to simulate "for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios."

The Applicant submits therefore that claim 88 is allowable over Eder and Steinman.

Rejection of Claim 93 as Obvious over Eder and Steinman

Claim 93 recites, *inter alia*, that "step (c) comprises applying an event-based simulation technique." The Examiner cites to Steinman as disclosing this feature. Steinman, however, is clearly non-analogous art, dealing with a scheme for managing events within a priority queue stored on a computer. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Steinman for guidance regarding simulation techniques. Accordingly, Eder and Steinman cannot properly be combined to render claim 93 obvious.

Moreover, even assuming, *arguendo*, that Eder and Steinman were properly combinable, which they are not, no combination of Eder and Steinman would yield what is claimed in claim 93. Step (c), to which claim 93 refers, recites "(c) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios." Nowhere do Eder or Steinman teach, disclose, or even suggest the simulation of a plurality of scenarios, as fully argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview. Nor does Steinman supply the missing teachings. Since Eder and Steinman fail to disclose the creation of a plurality of scenarios in a decision domain, Eder and Steinman, whether taken alone or in combination, cannot possibly disclose applying an event-based simulation technique to simulate "for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios."

For all of these reasons, the Applicant submits therefore that claim 93 is allowable over Eder and Steinman.

Rejection of Claim 92 as Obvious over Eder and Eicher

Claim 92 recites, *inter alia*, that "step (c) comprises applying a complex adaptive system or distributed agent simulation technique." The Examiner cites to Eicher as disclosing this feature. Eicher, however, is clearly non-analogous art, dealing with generating alerts in a performance-based supply chain management system. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Eicher for guidance regarding simulation techniques. Accordingly, Eder and Eicher cannot properly be combined to render claim 92 obvious.

Moreover, even assuming, *arguendo*, that Eder and Eicher were properly combinable, which they are not, no combination of Eder and Eicher would yield what is claimed in claim 92. Step (c), to which claim 92 refers, recites "(c) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios." Nowhere do Eder or Eicher teach, disclose, or even suggest the simulation of a plurality of scenarios, as fully argued above with

reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview. Nor does Eicher supply the missing teachings. Since Eder and Eicher fail to disclose the creation of a plurality of scenarios in a decision domain, Eder and Eicher, whether taken alone or in combination, cannot possibly disclose applying a complex adaptive system or distributed agent simulation technique to simulate "for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios."

The Applicant submits therefore that claim 92 is allowable over Eder and Eicher.

Rejection of Claim 94 as Obvious over Eder and Ball

Claim 94 recites, *inter alia*, that "step (c) comprises using a Bayesian inference technique to compound conditional probabilities." The Examiner cites to Ball as disclosing this feature. Ball, however, is clearly non-analogous art, dealing with modeling and projecting emotion and personality from a computer user interface. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Ball for guidance regarding techniques for compounding conditional probabilities. Accordingly, Eder and Ball cannot properly be combined to render claim 94 obvious.

Moreover, even assuming, *arguendo*, that Eder and Ball were properly combinable, which they are not, no combination of Eder and Ball would yield what is claimed in claim 94. Step (c), to which claim 94 refers, recites "(c) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios." Nowhere do Eder or Ball teach, disclose, or even suggest the simulation of a plurality of scenarios, as fully argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the 8/15/06 interview. Nor does Ball supply the missing teachings. Since Eder and Ball fail to disclose the creation of a plurality of scenarios in a decision domain, Eder and Ball, whether taken alone or in combination, cannot possibly disclose using a Bayesian inference technique to compound conditional probabilities in "simulating for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios."

The Applicant submits therefore that claim 94 is allowable over Eder and Ball.

Rejection of Claim 97 as Obvious over Eder and Watanabe

Claim 97 recites, *inter alia*, that "step (c) comprises permitting a user to monitor the progress of the simulation in real time." The Examiner cites to Watanabe as disclosing this feature. Watanabe, however, is clearly non-analogous art, dealing with a scheme for simulating a computer network system. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Watanabe for guidance regarding the real-time monitoring of simulation progress. Accordingly, Eder and Watanabe cannot properly be combined to render claim 97 obvious.

Moreover, even assuming, *arguendo*, that Eder and Watanabe were properly combinable, which they are not, no combination of Eder and Watanabe would yield what is claimed in claim 97. Step (c), to which claim 97 refers, recites "(c) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios." Nowhere do Eder or Watanabe teach, disclose, or even suggest the simulation of a plurality of scenarios, as fully argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner's Supervisor during the

8/15/06 interview. Nor does Watanabe supply the missing teachings. Since Eder and Watanabe fail to disclose the creation of a plurality of scenarios in a decision domain, Eder and Watanabe, whether taken alone or in combination, cannot possibly disclose permitting a user to monitor the progress, in real time, of “simulating for one or more future time instants, each of the one or more alternative scenarios as influenced by (i) each candidate decision represented by the candidate decision parameters and (ii) parameters characterizing assumptions in alternative scenarios.”

The Applicant submits therefore that claim 97 is allowable over Eder and Watanabe.

Rejection of Claim 118 as Obvious over Eder and Abu El Ata

Claim 118 recites, *inter alia*,

(f) updating the alternative scenarios based on the simulated outcome of the selected optimal strategy; and

(g) simulating results of each of an updated plurality of strategies based on the updated alternative scenarios.

As argued above with reference to claims 64-105 and discussed with the Examiner and the Examiner’s Supervisor during the 8/15/06 interview, Eder fails to disclose the creation of a plurality of scenarios in a decision domain, and the Applicant reasserts these arguments for claim 118. Eder does not disclose the updating of alternative scenarios or the existence of “updated alternative scenarios,” because the simulation disclosed in Eder involves no more than a single scenario. The Examiner cites to Abu El Ata as disclosing the foregoing steps. However, Abu El Ata also fails to disclose the use of more than a single scenario. There are no “alternative” scenarios or parameters corresponding thereto in Eder or Abu El Ata, and thus, there can be no “updating the alternative scenarios based on the simulated outcome of the selected optimal strategy” or “simulating results of each of an updated plurality of strategies based on the updated alternative scenarios.”

In rejecting claim 118, the Examiner cites to col. 3, lines 25-44 of Abu El Ata, which states as follows:

The present invention provides a design methodology and tool for designing optimum IS architectures and optimal IS configurations. In general, the design approach of the present invention starts at a high level of abstraction and moves toward technical requirements to meet a business entity's needs. The first level of abstraction considers business operations referred to as "processes" and "subprocesses". The succeeding level of abstraction couches the processes in terms of application software solutions and components. A next level identifies the physical requirements (e.g., processing speed, memory, storage, etc.) to achieve and support the processes and corresponding application/software components. A final level determines platform specific components/hardware and alternatives. The alternatives provide an iterative feedback loop through the various levels of abstraction and supports "what-if" designing/brainstorming. Comparisons of alternatives and what-if scenarios are with respect to performance criteria at each level, such that an optimal IS architecture and configuration is achieved.

The mention of a “feedback loop” in Abu El Ata is not at all what is claimed in claim 118. This feedback loop accounts for design requirements that do not change over time during the modeling process of Abu El Ata. To the contrary, the present invention, as claimed in claim 118, permits an entire decision or strategy to be revisited periodically using updated information generated by the simulated outcome of a prior optimal decision or strategy, thereby providing robustness over time. The so-called “feedback loop” of Abu El Ata falls short in this regard and cannot be said to teach, disclose, or even suggest the steps of “(f)

updating the alternative scenarios based on the simulated outcome of the selected optimal strategy; and (g) simulating results of each of an updated plurality of strategies based on the updated alternative scenarios.”

Moreover, Abu El Ata is non-analogous art, dealing with the design of optimal information systems architectures. One skilled in the art of Eder, i.e., financial valuation of a business, would not have turned to Abu El Ata for guidance regarding the updating of alternative scenario parameters.


The Applicant submits therefore that claim 118 is allowable over Eder and Abu El Ata.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

In the event that the Examiner believes that this Amendment does not place the application in condition for allowance, the Applicant requests a telephonic interview between the Examiner and the Applicant's attorney Kevin Drucker to discuss this Amendment. The Applicant requests that the Examiner call Mr. Drucker (215-557-6659) to arrange a convenient time for such an interview.

Respectfully submitted,

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